#### 713.4.01 Limits

General Provisions 101 through 150.

# 713.5 Payment

The preliminary preparation of the areas on which the blanket is to be placed, including seeding or sodding, will be paid for under the appropriate Contract Items.

Straw blanket excelsior blanket, coconut fiber blanket, wood fiber blanket or synthetic fiber blanket will be paid for at the Contract Unit Price per square yard (meter). Payment is full compensation for the construction of the Item including all laps, materials, equipment, tools, labor, incidentals, and maintenance.

Payment will be made under:

| Item No. 713 | Straw blanket (slopes)            | Per square yard (meter) |
|--------------|-----------------------------------|-------------------------|
| Item No. 713 | Excelsior blanket (slopes)        | Per square yard (meter) |
| Item No. 713 | Excelsior blanket (waterways)     | Per square yard (meter) |
| Item No. 713 | Coconut fiber blanket (waterways) | Per square yard (meter) |
| Item No. 713 | Wood fiber blanket (slopes)       | Per square yard (meter) |
| Item No. 713 | Synthetic fiber blanket (slopes)  | Per square yard (meter) |

# 713.5.01 Adjustments

General Provisions 101 through 150.

# **Section 714—Jute Mesh Erosion Control**

# 714.1 General Description

This work includes furnishing and placing jute mesh over previously prepared grassed areas according to the Plans or as directed by the Engineer.

# 714.1.01 Definitions

Jute Mat: A mesh matting made of jute yarn.

# 714.1.02 Related References

# A. Standard Specifications

Section 106—Control of Materials

#### **B.** Referenced Documents

General Provisions 101 through 150.

#### 714.1.03 Submittals

Provide a materials certification according to Subsection 106.05 that the materials meet the Specifications.

# 714.2 Materials

Ensure that materials conform with Subsection 106.05 and meet the requirements below.

#### A. Jute Mat

Use jute mat made of unbleached, undyed, and loosely-twisted yarn. The unit yarn weight shall be from 0.90 to 1.50 lb/yd $^2$  (488 to 814 g/m $^2$ ). A 48 in (1.2 m) width shall show between 76 and 80 warpings, and a 36 in (900 mm) length shall show between 39 and 43 weftings. Furnish woven mesh strips of at least 45 in (1.1 m).

#### **B.** Anchoring Staples

Cold-drawn wire 14 gauge (2 mm) or wider in diameter, formed into a U shape from a wire 12 in (300 mm) or longer.

# 714.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

# 714.3 Construction Requirements

#### **714.3.01 Personnel**

General Provisions 101 through 150.

# **714.3.02 Equipment**

General Provisions 101 through 150.

## 714.3.03 Preparation

Before placing jute mesh, complete grassing and leave the area in the following condition:

- Smooth
- Uniform
- Free of stones, lumps, or roots
- Free of other material that prevents mesh from snugly contacting the underlying soil

If erosion occurs after attaining the required surface area and contour, repair the area before placing mesh.

# 714.3.04 Fabrication

General Provisions 101 through 150.

#### 714.3.05 Construction

#### A. Placing Mesh

After grassing, place jute mesh in an area indicated on the Plans or as directed by the Engineer.

Place mesh according to the Plans and the following requirements:

- 1. Roll the mesh out in the direction of flow unless the downstream end section connects to a drainage structure or paved ditch. In this case:
  - a. Anchor the mesh in a 6 in (150 mm) deep trench adjacent to the structure.
  - b. Roll the mesh upstream and use a junction slot to connect it to the mesh that has been rolled downstream.
- 2. Overlap adjacent strips by at least 6 in (150 mm).
- 3. Overlap adjoining ends by at least 6 in (150 mm).
- 4. For all overlaps, place the upstream section on top.
- 5. Use a Type 2 check slot at the downstream end of the jute mesh that does not connect to a structure.
- 6. Apply jute mesh without stretching. Lay it evenly but loosely on the soil surface.
- 7. To keep the area smooth, do not allow workers to walk directly on the seedbed before or after applying mesh.
- 8. Bury the up-channel end of each installation in a narrow, 6 in (150 mm) deep trench.
- 9. After burying the mesh, backfill, tamp, and staple the trench as shown on the Plans.
- 10. Where one roll of jute mesh ends and a second begins, use a junction slot to make the connection as shown on the Plans.
- 11. Space between the check or anchor slots is no more than 50 ft (15 m) on grades of 3 percent or less. On grades of more than 3 percent, ensure that the space between the check or anchor slots is no more than 25 ft (7.5 m).

# B. Stapling

Hold matting strips firmly in place with one row of staples as follows:

- 1. Staple along each edge.
- 2. Staple each row along the middle.
- 3. Space staples no more than 3 ft (1 m) apart in each row.
- 4. Space the staples in the middle row alternately with those at the edges.
- 5. For strips wider than 60 in (1.5 m), space staples no more than 3 ft (1 m) apart.

- 6. At the ends of the covered area and at overlapping joints, space staples no more than 18 in (450 mm) apart.
- 7. Ensure that staples remain flush with the ground.

#### C. Rolling

After placing and stapling the jute mesh:

- 1. Firmly embed it in the soil by tamping or rolling.
- 2. Secure mesh that bridges over soil surface irregularities with extra staples to provide overall contact with the soil.

## 714.3.06 Quality Acceptance

General Provisions 101 through 150.

## 714.3.07 Contractor Warranty and Maintenance

Maintain jute mesh installation during the life of the Contract. Before acceptance of the Project, reshape, regrass, or refertilize if:

- Staples become loose or raised
- Mesh becomes loose, torn, or undermined

Repair or replace jute mesh without additional compensation.

# 714.4 Measurement

Jute mesh, complete in place and accepted, will be measured for payment by the square yard (meter), surface measure. Laps will not be measured but will be included in the overall area.

#### 714.4.01 Limits

General Provisions 101 through 150.

# 714.5 Payment

Preparing areas to be meshed, including seeding or sodding, will be paid for under the appropriate Contract Items.

Jute mesh will be paid for at the Contract Unit price per square yard (meter), which is full compensation for constructing the Item and providing materials, equipment, tools, labor, maintenance, and incidentals.

Payment will be made under:

| Item No. 714 | Jute mesh | Per square yard (meter) |
|--------------|-----------|-------------------------|
|--------------|-----------|-------------------------|

# 714.5.01 Adjustments

General Provisions 101 through 150.

# **Section 715—Bituminous Treated Roving**

# 715.1 General Description

This work includes furnishing and placing a layer of bituminous treated roving on planted slopes, ditches, waterways, and other areas according to the Plans or as directed by the Engineer.

#### 715.1.01 Definitions

General Provisions 101 through 150.

## 715.1.02 Related References

# A. Standard Specifications

Section 822—Emulsified Asphalt

## **B.** Referenced Documents

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